

# Patent Claims

1. Device for the remelting of glass bars (2);
  - 1.1 with at least one receiving shell (1) which has an inlet at its upper end for the receiving of the glass bar (2), and an outlet at its other end for the running-off of the melt;
  - 1.2 with a crucible (3) which is located underneath the receiving shell (1), is open at the top and has a runoff (3,) at its bottom;
  - 1.3 with a heating arrangement (5) for heating the crucible contents;
  - 1.4 the under-edge of the receiving shell (1) is located, for the avoidance of a tapering of the glass stream, at the height of the liquid level (7.1) of the melt bath (7) or above it;
  - 1.5 following the crucible (3) there is engaged a runoff shell (3.3);
  - 1.6 to the runoff shell (3.3) there is assigned an arrangement for the generation of drops (needle or suction feeder).
2. Device according to claim 1, characterized in that the heating arrangement for the heating up of the crucible contents comprises a coil (5) for the coupling-in of electric energy.
3. Device according to claim 1 or 2, characterized in that the

receiving shell (1) and the crucible (33) are arranged relatively to one another in such manner that the receiving shell (1) is enclosed by the crucible wall (3.2) at least on the lower part of its length.

4. Device according to one of claims 1 to 3, characterized in that the outlet zone (1.1, 1.2) of the receiving shell (1) is tapered continuously or abruptly in the running out direction.
5. Device according to one of claims 1 to 4, characterized in that the cross section contour of the inner surface of the receiving shell (1) is at least approximately equal to the cross section contour of the outer surface of the glass bar (2).
6. Device according to one of claims 1 to 5, characterized in that the heating arrangement (4) is assigned to the runoff shell (3.3.).
7. Device according to one of claims 1 to 6, characterized in that the runoff shell (3.3) is offset with respect to the receiving shell (1).
8. Device according to one of claims 1 to 7, characterized in that the receiving shell (1) is adjustable in its position relatively to the crucible (3), especially in its height.

9. Process for the remelting of glass bars, with the following features:
- 9.1 A glass bar (2) is introduced into the upper end of a receiving shell (1);
  - 9.2 underneath the receiving shell (1) there is made available a molten bath (7) with a surface (7.1);
  - 9.3 the receiving shell (1) is positioned in such manner that its lower edge is located at the height of the surface (7.1) or above it;
  - 9.4 the lower end of the glass bar (2) is heated to a temperature above the softening temperature of the glass;
  - 9.5 the melt-off process is controlled in such manner that a continuous melt stream enters the molten bath (7) with avoidance of a constriction;
  - 9.6 melt is drawn off from the molten bath (7) by means of an arrangement for drop generation.
10. Process according to claim 9, characterized in that the melting-off of the glass bar (2) is performed by the coupling of electric energy into the crucible unit or by radiation heating elements, or by burner (blowpipe) heating.
11. Process according to claim 9 or 10, characterized in that the glass throughput is controlled by the means that at least one of the following parameters is altered:
- by the amount of the supplied energy;
  - by the spacing between the under edge of the receiving

shell (1) and the liquid surface (7.1) of the molten bath (7);

- by a choking of the glass stream emerging from the bath (7) .

12. Process according to one of claims 9 to 11, characterized in that the glass bars (2) used have in each case at least one end which closes off with a convex form (for example a cone, a hemisphere) or with a flat surface, in order to avoid an inclusion of gas at the bar-to-bar impact point.